10749540 - GAU: 3768

Receipt date: 12/31/2003 MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Panerwork Reduction Act of 1995, no nersons are requi-

5	Substitute for förm 14	449B/I	PTO	Complete if Known		
INI	FORMATION DIS	CLOS	SURE	Applicati n Number		
ST	ATEMENT BY A	PPLIC	CANT	Filing Date		
0.4.	Submitted: Decen		14 0000	First Named Inventor	Joel Q. Xue	
Date	Submitted: Decen	noer.	31, 2003	. Group Art Unit		
(use as many sheets as necessary)				Examiner Name		
Sheet	1	of	3	Attorney Docket Number	066243-0240 (141224)	

				U.S. PATENT DOCUMENTS	3	
Examiner	Cite No.1	U.S. Patent Document		Name of Patentee or Applicant of	Date of Publication of	Pages, Columns, Lines, Where Relevant
Initials*		Number	Kind Code ² (if known)	Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear
	A-1	6,569,160		Goldin et al.	05-27-2003	
	A-2	6,565,511		Panescu et al.	05-20-2003	
	A-3	6,558,333		Gilboa et al.	05-06-2003	
	A-4	6,546,270	1	Golden et al.	04-08-2003	
	A-5	6,528,991		Ashe	03-04-2003	
	A-6	6,522,913		Swanson et al.	02-18-2003	-
	A-7	6,516,807		Panescu et al.	02-11-2003	
	A-8	6,498,944		Ben-Haim et al.	12-24-2002	
	A-9	6,498,477		Govari et al.	12-24-2002	
	A-10	6,496,712		Dahl et al.	12-17-2002	
	A-11	6,490,475		Seeley et al.	12-03-2002	
	A-12	6,490,474		Willis et al.	12-03-2002	
	A-13	6,490,468		Panescu et al.	12-03-2002	
	A-14	6,489,961		Baxter, III et al.	12-03-2002	
	A-15	6.487,441		Swanson et al.	11-26-2002	
	A-16	6,484,118		Govari	11-19-2002	
	A-17	6.484.049		Seelev et al.	11-19-2002	
	A-18	6.458,123	 	Brucker et al.	10-01-2002	
	A-19	6.456.867		Reisfeld	09-24-2002	
	A-20	6.453,190	1	Acker et al.	09-17-2002	
	A-21	6,447,504	1	Ben-Haim et al.	09-10-2002	
	A-22	6,445,943		Ferre et al.	09-03-2002	
	A-23	6,427,314		Acker	08-06-2002	
	A-24	6,400,981	1	Govari	06-04-2002	
	A-25	6.385,476	1	Osadchy et al.	05-07-2002	
	A-26	6.380,732	T	Gilboa	04-30-2002	
	A-27	6,379,302	1	Kessman et al.	04-30-2002	-
	A-28	6,373,240		Govari	04-16-2002	
	A-29	6,370,411		Osadchy et al	04-09-2002	
	A-30	6,368,285		Osadchy et al	04-09-2002	
	A-31	6,366,799		Acker	04-02-2002	
	A-32	6,341,231		Ferre et al.	01-22-2002	
	A-33	6,335,617		Osadchy et al	01-01-2002	
	A-34	6,332,089		Acker et al.	12-18-2001	
	A-35	6,314,310		Ben-Haim et al.	11-06-2001	
	A-36	6,301,496		Reisfeld	10-09-2001	
	A-37	6,285,898		Ben-Haim	09-04-2001	
	A-38	6,266,551		Osadchy et al	07-24-2001	
	A-39	6,256,540		Panescu et al.	07-03-2001	
	A-40	6,248,075	1	McGee et al.	06-19-2001	
	A-41	6,246,898		Vesely et al.	06-12-2001	
	A-42	6,246,231	1.	Ashe	06-12-2001	

Examiner Signature	Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ¹Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ²For Japanese patent documents, the indication of the year of the reign of the Emperer must precede the serial number of the patent document. ²Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.1 of possible. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patient and Trademark Officer, PO Box 1450, Alexandria, Viging 23213-1450. ON ON'S END FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patients, PO Box 1450, Alexandria, Virginia 22313-1450.

Receipt date: 12/34/2003

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

	Substitute for	form 1449B	PTO	Complete if Known		
	INFORMATIO	N DISCLO	SURE	Application Number		
	STATEMENT	BY APPLI	CANT	Filing Date		
	Date Submitted:	n	24 2002	First Named Inventor	Joel Q. Xue	
L	Jate Submitted:	December	31, 2003	Group Art Unit		
	(use as many sh	eets as ne	cessary)	Examiner Name		
Sheet	2	of	3	Attorney Docket Number	066243-0240 (141224)	

		U.S. Patent	Document		Pages, Columns, Line		
Examiner Initials*	Cite No.1	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	
	A-43	6,240,307		Beatty et al.	05-29-2001		
	A-44	6,226,543		Gilboa et al.	05-01-2001		
	A-45	6,226,542		Reisfeld	05-01-2001		
	A-46	6,223,066		Govari	04-24-2001		
	A-47	6,216,027		Willis et al.	04-10-2001		
	A-48	6,211,666		Acker	04-03-2001		
	A-49	6,198,963		Haim et al.	03-06-2001		
	A-50	6,188,924		Swanson et al.	02-13-2001		
	A-51	6,188,355		Gilboa	02-13-2001		
	A-52			LoRe et al.	02-06-2001		
	A-53			Ferre et al.	01-16-2001		
	A-54			Acker	12-12-2000		
	A-55	6,147,480		Osadchy et al	11-14-2000		
	A-56	6,066,094		Ben-Haim	05-23-2000		
	A-57	6,019,725		Vesely et al.	02-01-2000		
	A-58			Acker	01-18-2000		
	A-59	5,983,126		Wittkampf	11-09-1999		
	A-60	5,967,980		Ferre et al.	10-19-1999		
	A-61	5,953,683		Hansen et al.	09-14-1999		
	A-62	5,928,248		Acker	07-27-1999		
	A-63	5,916,163		Panescu et al.	06-29-1999		
	A-64	5,873,822		Ferre et al.	02-23-1999		
	A-65	5,868,673		Vesely	02-09-1999		
	A-66			Ben-Haim	11-24-1998		
	A-67	5,833,608		Acker	11-10-1998		
		5,830,144		Vesely	11-03-1998		
		5,829,444		Ferre et al.	11-03-1998		
	A-70	5,820,568		Willis	10-13-1998		
	A-71	5,817,022		Vesely	10-06-1998		
	A-72	5,813,991		Willis et al.	09-29-1998		
	A-73	5,803,089		Ferre et al.	09-08-1998		
	A-74	5,800,352		Ferre et al.	09-01-1998		
	A-75	5,797,849		Vesely et al.	08-25-1998		
	A-76			Vesely et al.	08-18-1998		
	A-77	5,779,638	+	Vesely et al.	07-14-1998		
	A-78	5,752,513		Acker et al. Hansen	05-19-1998 04-28-1998		
	A-79	5,744,953					
	A-80	5,738,096		Ben-Haim	04-14-1998		
	A-81	5,729,129		Acker	03-17-1998		
	A-82	5,722,402		Swanson et al.	03-03-1998		
	A-83 A-84	5,718,241 5,718,241		Ben-Haim et al. Ben-Haim et al.	02-17-1998 02-17-1998		

Examiner Signature	Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

* Unique cellulon designation number. See attached Kinds of U.S. Patent Documents. Enter Office that issued the document, by the two-letter code (NIPO) Sundard ST3, "For Janguage sparted documents, the indication of the year of the region of the Emperor must precede the serial number bealent document. **
*Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. **Applicant is to place a check mark here if Emplish language Translation is attached.**

Burden Hour Statement: This form is estimated to take 2.0 hour to complete. Time will very depending upon the needs of the individual case. Any comments on the amount of time you are required to complete its form should be sent to the Orbit Information Officer, U.S. Patent and Trademark Office, P.O. Se to 1850. Alexandria, Virginia 2231-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450. Alexandria, Virginia 2231-1450.

MODIFIED PTO/SB/08 (08-00) Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control

	Substitute for	r form 1449B/	PTO		Complete if Known		
	INFORMATION	ON DISCLO	SURE	Application Number			
	STATEMENT	BY APPLI	CANT	Filing Date			
	Date Submitted:	n	24 2002	First Named Inventor	Joel Q. Xue		
	Date Submitted:	December	31, 2003	Group Art Unit			
	(use as many s	heets as ne	cessary)	Examiner Name			
Sheet	3	of	3	Attorney Docket Number	066243-0240 (141224)		

				U.S. PATENT DOCUMENTS	6	
Examiner Initials*	Cite	U.S. Patent D			Date of Publication of	Pages, Columns, Lines, Where Relevant
	No.1	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear
	A-85	5,713,946		Ben-Haim	02-03-1998	
	A-86	5,697,377		Wittkampf	12-16-1997	
	A-87	5,694,945		Ben-Haim	12-09-1997	
	A-88	5,676,673		Ferre et al.	10-14-1997	
	A-89	5,662,108		Budd et al.	09-02-1997	
	A-90	5,600,330		Blood	02-04-1997	
	A-91	5,568,809		Ben-Haim	10-29-1996	
	A-92	5,558,091		Acker et al.	09-24-1996	
	A-93	5,553,611		Budd et al.	09-10-1996	
	A-94	5,546,951		Ben-Haim	08-20-1996	
	A-95	5,515,853		Smith et al.	05-14-1996	
	A-96	5,480,422		Ben-Haim	01-02-1996	
	A-97	5,445,150		Dumoulin et al.	08-29-1995	
	A-98			Ben-Haim	08-22-1995	
	A-99			Dumoulin et al.	08-22-1995	
	A-100	5,391,199		Ben-Haim	02-21-1995	
	A-101	5,311,866		Kagan et al.	05-17-1994	
	A-102	5,297,549		Beatty et al.	03-29-1994	
	A-103	4,945,305		Blood	07-31-1990	
	A-104	4,849,692		Blood	07-18-1989	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.1	Fore Office ³	eign Patent [Number ⁴	Ocument Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶

NON PATENT LITERATURE DOCUMENTS								
Examiner Initials*	Cite No.1 Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue numb publisher, city and/or country where published.							
	A-105	ASTROM, M. et al., Least Squares VCG Loop Alignment, 4 Pages						
	A-106	ASTROM M. et al., Vectorcardiographic Loop Alignment and the Measurement of Morphologic Beat-to-Beat Variability in Noisy Signals, IEEE Transactions on Biomedical Engineering, Vol. 47, No. 4, April 2000, pages 497-50.						
	A-107	ASTROM M., Vectorcardiographic Loop Alignment in Ischemia Monitoring, Licentiate in Engineering Thesis, April 2000, 75 Pages						

Examiner Signature	/Katherine Fernandez/	Date Considered	04/01/2011

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

*Unique citation designation number. *See attached Kinds of U.S. Patient Documents. *Einter Office that issued the document by the hot-letter code (NIPO Standard ST3.) *For a Spances peated documents, the indication of the year of the reign of the Emproyer must provide met. by the hot plant document. *Kind of document by the appropriate symbols as indicated on the document under VIPO Standard ST. 16 if possible. *Applicant is to place a check mark here if English Indiques of Pransletion is attached.*

Burden Neur Statement: This form is estimated to take 2.0 hours to complete. Time will very depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this some about be sent to the Chief Information Officer, (L.9. Patient and Trademark Office, P.D. Box 1450, Alexandria, Virginia 2231-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patients, PO Box 1450, Alexandria, Virginia 2231-1450.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /K.F./